



Department of Energy

ROCKY FLATS FIELD OFFICE
P O BOX 928
GOLDEN COLORADO 80402-0928

AUG 09 1999

99-DOE-03654

Mr Steve Gunderson
Colorado Department of Public Health and Environment
4300 Cherry Creek Drive South
Denver, Colorado 80246-1530

Mr Tim Rehder
U S Environmental Protection Agency, Region VIII
999 18th Street, Suite 500
Denver, Colorado 80202-2466

Dear Mr Gunderson and Mr Rehder

Enclosed for your information is the Rocky Flats Cleanup Agreement Implementation Quarterly
Status Report for the third quarter of Fiscal Year 1999

If you have any questions concerning this report, please contact me at (303) 966-5918 or Gail
Hill of my staff at (303) 966-3424

Joseph A Legare
Assistant Manager
for Environment and Infrastructure

Enclosure

cc w/o Enc
G Hill, ERWM, RFFO
R DiSalvo, OCC, RFFO
D Shelton, K-H
L Brooks, K-H

cc w/Enc
Administrative Record
Rocky Flats Citizen Advisory Board



ADMIN RECCRD
SW-SW-A-003335

QUARTERLY STATUS REPORT

RFCA IMPLEMENTATION ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE THIRD QUARTER FISCAL YEAR 1999

1.0 Introduction

Pursuant to paragraph 263 of the Rocky Flats Cleanup Agreement (RFCA or Agreement), this quarterly status report presents the progress toward implementation of activities covered under the Agreement. The RFCA is a legally binding agreement between the Department of Energy (DOE), the Environmental Protection Agency (EPA), and the Colorado Department of Public Health and Environment (CDPHE) to accomplish required cleanup of radionuclide and hazardous substance contamination at and from the Rocky Flats Environmental Technology Site (RFETS or Site).

This report describes activities that occurred from April 1999 through June 1999 (referred to as the third quarter of fiscal year [FY] 99). The sections of this report are organized into the following topics: (1) Introduction, (2) Key Site-wide Activities Supporting RFCA and Site Closure, (3) Issues Impacting RFCA Milestones or Target Activities, (4) a Summary Table of the Status of the FY99 RFCA Milestones, Target Activities and Closure Projects, and (5) List of Approved Decision Documents.

2.0 Key Site-wide Activities Supporting RFCA and Site Closure

2.1 Closure Project Baseline

PricewaterhouseCoopers completed a draft external validation of the 2010 Closure Project Baseline (CPB) in the third quarter of FY99. The purpose of this validation effort is to test an existing, approved CPB to determine whether the project management principles being used to develop closure plans at RFETS are sound. PricewaterhouseCoopers will finalize their validation of the 2010 CPB in the fourth quarter of FY99. Comments from the final 2010 CPB validation will be incorporated in the 2006 Closure Project Plan.

At the request of DOE, the Kaiser-Hill Team submitted a 2006 Closure Project Plan to DOE in the third quarter of FY99. This deliverable defines the plan, including the scope, schedule, and cost, to completely close RFETS by the end of calendar year 2006 – an acceleration of four years over the current 2010 plan. Validation of the 2006 Closure Project Plan began in the third quarter after the submittal of the 2006 Plan and will be completed in the fourth quarter of FY99. Major changes resulting from this validation will be incorporated into a revised 2006 Plan that is expected to be adopted by DOE as the new CPB.

2.2 Actinide Migration Evaluation

During the third quarter of FY99, the following activities were conducted by the Actinide Migration Evaluation Team: (1) continued the watershed erosion (WEPP) modeling for the South Interceptor Ditch, Woman Creek and Walnut Creek watersheds, the sediment transport modeling, the geochemical modeling, and the air transport modeling, (2) continued redox and colloid experiments, (3) made preparations for groundwater well installation, (4) audited Colorado School of Mines and Texas A&M laboratories, (5) collected surface water suspended solids samples from gaging stations GS-03 and GS-10 for ultrafiltration fractionation and actinide analysis, (6) held an Actinide Migration Evaluation meeting with regulators and stakeholders on April 28-29, 1999 and on June 1, 1999. Discussion topics

during the April 1999 meeting included the form of plutonium in the environment, partition coefficients, colloid transport in the conceptual model, and the status of the soil aggregation experiments. The June 1999 meeting provided an update on the WEPP and air modeling and discussed "what-if" scenarios. The next Actinide Migration Evaluation Meeting will be on July 7, 1999.

3.0 Issues Impacting RFCA Milestones or Target Activities

3.1 Milestone M4: Complete installation and operate remedial action described in decision document for Solar Pond Plume (N. Walnut Creek) by 9/30/99

The Solar Ponds Interim Measures/ Interim Remedial Action (IM/IRA) was approved on June 11, 1999 by CDPHE, work began on June 14, 1999. The U.S. Fish and Wildlife Service mandated a start date of June 1, 1999 based on mitigative measures to limit impact to the Prebles Meadow Jumping Mouse. This start time eliminated any project schedule contingency. The following activities potentially introduce significant risk to completing the project by September 30, 1999: (1) delay in approval of the decision document, and (2) expected soil instability of the trench during construction, based on similar geology and the experience installing the same technology at the East Trenches Plume Project. Work is being expedited where possible to complete the installation and operation of the reactive barrier system by September 30, 1999.

3.2 Milestone M9: Complete information management system for integrated site-wide monitoring and environmental database by 9/30/99

This milestone was completed in the 2nd quarter, has been established on the RFETS Intranet, and is updated as monitoring data becomes available and validated. Additional interfaces to the system will allow public access of the environmental information portion on the Internet. During the third quarter of FY99, the following activities were conducted: (1) completed modifications to Internet and Intranet applications to reduce the overall operating cost, and (2) coordinated future Internet launch of site with existing RFETS gov Internet site to provide a cohesive public awareness presence.

3.3 Milestone M10: Either (a) construct and operate new facility for storage of TRU/TRM by 9/30/99 or (b) by 9/30/99 demonstrate adequate storage available for TRU/TRM through 9/30/00

During the third quarter of FY99, Tents 2 and 12 on the 750 Pad were placed into service for storage of repackaged residue transuranic (TRU) and transuranic mixed (TRM) waste in pipe overpack components. The tents provide new storage capacity of approximately 1,900 cubic meters.

DOE initiated the first shipment to the Waste Isolation Pilot Plant (WIPP) on June 15, 1999. The ability to ship TRU waste to WIPP (mixed waste will not be shipped pending issuance of the WIPP Resource Conservation and Recovery Act [RCRA] permit by the New Mexico Environmental Department) would minimize the need for additional storage, however, it may not eliminate the need altogether. As a result, other contingent storage options continue to be evaluated in the event that shipments can not be sustained at a rate necessary to keep pace with ongoing generation or inventory elimination needs. DOE initiated a 45-day public comment period which ends on July 23, 1999 for a draft Environmental Assessment in which multiple options are evaluated to accommodate future TRU/TRM storage needs.

No other issues were identified during the third quarter of FY99 that impact the RFCA Milestones or Target Activities.

4.0 Summary Table

The following table provides a status summary of the FY99 RFCA Milestones, Target Activities, and Closure Projects through the third quarter of FY99

RFCA Milestone (R-M), Target Activities (R-T), and Closure Projects Tracking Table FY99

Driver	Commitment	Due Date	At Risk	Status/Comments
R-T	FY99-T1 Thermally stabilize 90% of the plutonium oxide generated during the year by 9/30/99	9/30/99	N	On Schedule
R-T	FY99-T2 Complete the offsite shipment of the pits by 9/30/99	9/30/99	N	Complete
R-T	FY99-T3 Drain 6 systems in Building 771 by 9/30/99	9/30/99	N	Complete
R-T	FY99-T5 Remove solid Categories I and II SNM (not holdup and composites) from Building 776/777 by 9/30/99	9/30/99	N	On Schedule
R-M	FY99-M1 Either (a) ship cumulative amount of 78% of 10/01/96 pond/salt inventory off site and evacuate all waste from Tent 9 by 9/30/99, or (b) the additional on site storage for pond/salt is operational by 9/30/99	9/30/99	N	Complete
R-M	FY99-M3 Ship 1,750 cubic meters of low-level waste by 9/30/99	9/30/99	N	Complete
R-M	FY99-M4 Complete installation and operate remedial action described in decision document for Solar Pond plume (N Walnut Creek) by 9/30/99	9/30/99	Y	The decision document was approved on June 11, 1999, work began on June 14, 1999 See Section 3.1.
R-M	FY99-M5 Complete installation and operate remedial action described in decision document for East Trenches/903Pad/ Ryan's Pit Mound plume (S Walnut Creek) by 9/30/99	9/30/99	N	On Schedule Installation activities were initiated on March 1, 1999 As of June 30, 1999, approximately 50% of the collection trench has been installed The reactor vessels have been installed and are operational
R-M	FY99-M7 Develop a comprehensive characterization/remediation strategy for the Industrial Area soils and groundwater by 9/30/99	9/30/99	N	On Schedule The annotated outline was provided to the stakeholders for comment on June 9, 1999 The final draft strategy will be issued to the regulators and the public for concurrent review and comment in August 1999
R-M	FY99-M8 Complete off-site shipment by 9/30/99 for treatment and/or disposal of all T-1 waste streams not returned to T-1, and for which treatment or disposal locations are available and controlling documents	9/30/99	N	On Schedule As of April 30, 1999, no controlling documents were in place for disposal or shipment for treatment of wastes not returned to Trench 1 The following waste streams are scheduled for shipment for treatment/disposal by

Driver	Commitment	Due Date	AV Risk	Status/Comments
	are in place by 4/30/99			9/30/99 cemented cyanide and related debris, soil ($5000 \geq \text{cpm} < 10000$ and $\text{OVA} < 25 \text{ ppm}$ above background), excavated debris, project generated debris and project generated PPE
R-M	FY99-M9 Complete information management system for integrated Site-wide monitoring and environmental database by 9/30/99	9/30/99	N	Complete See Section 3.2.
R-M	FY99-M10 Either (a) construct and operate new facility for storage of TRU/TRM by 9/30/99 or (b) by 9/30/99 demonstrate adequate storage available for TRU/TRM through 9/30/00	9/30/99	N	See Section 3.3.
R-M	FY99-M11 Complete characterization of the 903 Pad as defined in the approved Sampling Analysis Plan by 9/30/99 (with the exception of the remaining radiologic boreholes which will be completed by 12/31/99)	9/30/99	N	On Schedule The subsurface radiological characterization and the subsurface volatile organic compound characterization at the 903 Pad were completed with the exception of receiving the final data on the stepout boreholes that were required The final characterization report will be issued during the fourth quarter of FY99
Closure Project	B771	N/A	N/A	CDPHE approved the B771/774 Closure Project Decommissioning Operations Plan (DOP) on January 11, 1999
Closure Project	B776/777 Cluster Closure Project	N/A	N/A	DOE and CDPHE comments are currently being incorporated into the DOP Through the third quarter of FY99, Special Nuclear Material has been removed from four vaults and 286 containers of legacy waste have been dispositioned from the building
Closure Project	B779 Cluster Closure Project	N/A	N/A	As of June 30, 1999, all gloveboxes have been removed from B779 and B729 has been stripped out and demolished to slab The 779 Cluster Demolition Plan was submitted for public review on June 24, 1999
Closure Project	B886 Cluster Closure Project	N/A	N/A	IM/IRA approved 8/3/98 Strip out of Room 103 will continue in FY99
Closure Project	Operable Unit 7	N/A	N/A	Modifications to the passive seep collection system were completed during the first quarter of FY99 The passive aeration system was installed during the first quarter of FY99 Sampling is being

Driver	Commitment	Due Date	At Risk	Status/Comments
				performed in accordance with the approved, modified Sampling and Analysis Plan
Closure Project	IHSS 118 1	N/A	N/A	The Sampling and Analysis Plan for IHSS 118 1 was completed and submitted to the agencies for review during the first quarter of FY99. Installation of monitoring wells was completed in the second quarter of FY99.

5.0 List of Approved Decision Documents

CDPHE approved the IM/IRA for the Solar Ponds Plume remediation project on June 11, 1999

CDPHE approved a minor modification to the 779 Cluster Decommissioning Project Plan for the demolition of B729 on May 20, 1999

No other decision documents were approved during the third quarter of FY99. This list of approved decision documents provides the update to RFCA Attachment 12.